



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-VD-1	22804 STUART 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	21.10	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-2	22808 STUARTTP 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	21.10	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-3	22400 LASPULGS 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	19.05	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-4	22368 JAP MESA 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	15.81	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-5	22046 BASILONE 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	14.92	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-6	22848 TALEGATP 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	13.26	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-7	22156 CRSTNTS 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	13.25	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-8	22836 TALEGA 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	13.25	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-9	22084 BORREGO 69 kV	TL06960 BORREGO-BR GEN HV ck 1	P1	L-1	9.26	8.66	8.70	9.08	<5	8.91			Turn on Capacitor at BORREGO to compensate for voltage drop
SD-SP-VD-10	22540 NARROWS 69 kV	TL06960 BORREGO-BR GEN HV ck 1	P1	L-1	7.13	6.67	6.71	6.79	<5	6.87			Turn on Capacitor at BORREGO to compensate for voltage drop
SD-SP-VD-11	22083 BR GEN HV 69 kV	BORREGO_SOLAR @ BORREGO	P1	L-1	6.79	6.51	6.51	6.96	<5	6.79			Turn on Capacitor at BORREGO to compensate for voltage drop
SD-SP-VD-12	22724 SANMRCOS 69 kV	TL0684 ESCNDIDO-SANMRCOS ck 1	P1	L-1	6.24	<5	<5	<5	<5	<5			ESCNDIDO-SANMRCOS ck 2, as previously approved, in 2018, Operation Procedure, and DG/DR/Energy Storage in the interim
SD-SP-VD-13	22044 BARRETPP 69 kV	TL0625c_LOVELAND 69-BARRETPP 69 ck 1	P1	L-1	<5	<5	<5	-5.25	<5	<5			Turn on Reactor at KUMEYAAY
SD-SP-VD-14	22324 GLENCLIF 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1	<5	<5	<5	-5.61	<5	<5			Turn on Reactor at KUMEYAAY
SD-SP-VD-15	22328 GLNCLFTP 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1	<5	<5	<5	-5.61	<5	<5			Turn on Reactor at KUMEYAAY
SD-SP-VD-16	22072 CAMERNTP 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1	<5	<5	<5	-7.31	<5	<5			Turn on Reactor at KUMEYAAY
SD-SP-VD-17	22902 CRESTWD 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1	<5	<5	<5	-7.33	<5	<5			Turn on Reactor at KUMEYAAY
SD-SP-VD-18	22903 KUMEYAAY 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1	<5	<5	<5	-7.34	<5	<5			Turn on Reactor at KUMEYAAY



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-VD-19	22104 CAMERON 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1	<5	<5	<5	-8.57	<5	<5			Turn on Reactor at KUMEYAAY
SD-SP-VD-20	22836 TALEGA 69 kV	TL0692 LASPULGS - JAP MESA ck 1	P1	L-1	-9.35	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-21	22848 TALEGATP 69 kV	TL0692 LASPULGS - JAP MESA ck 1	P1	L-1	-9.36	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-22	22156 CRSTNTS 69 kV	TL0692 LASPULGS - JAP MESA ck 1	P1	L-1	-9.36	<5	<5	<5	<5	<5			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-23	22040 BARRETT 69 kV	TL0625_TL0625 BAR - DS - LV ck 1	P1	L-1	<5	<5	<5	-9.58	<5	<5			Turn on Reactor at KUMEYAAY
SD-SP-VD-24	22640 PENDLETN 69 kV	TL0698 MN-AV-PA ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1	14.33	10.38	10.45	<10	<10	11.19			Operation Procedure
SD-SP-VD-25	22676 R.CARMEL 69 kV	TL0633 BERNARDO-R.CARMEL ck 1 AND TL06913 POWAY-POMERADO ck 1	P6	L-1/L-1	12.09	<10	<10	<10	<10	<10			2nd Poway-Pomerado 69 kV line as previously approved, Operation Procedure in the interim
SD-SP-VD-26	22668 POWAY 69 kV	TL0633 BERNARDO-R.CARMEL ck 1 AND TL06913 POWAY-POMERADO ck 1	P6	L-1/L-1	11.96	<10	<10	<10	<10	<10			2nd Poway-Pomerado 69 kV line as previously approved, Operation Procedure in the interim
SD-SP-VD-27	22104 CAMERON 69 kV	TL06904 LOVELAND-ALPINE ck 1 AND TL6914NW MIGUEL-LOVELAND ck 1	P6	L-1/L-1	<10	<10	<10	<10	<10	11.12			Turn on Capacitor at KUMEYAAY
SD-SP-VD-28	22040 BARRETT 69 kV	TL06904 LOVELAND-ALPINE ck 1 AND TL6914NW MIGUEL-LOVELAND ck 1	P6	L-1/L-1	<10	<10	<10	<10	<10	11.05			Turn on Capacitor at KUMEYAAY
SD-SP-VD-29	22046 BASILONE 69 kV	LASPULGS-JAP MESA 69 ck1 AND TALEGA-S.ONOFRE 230 ck 2	P7	L-2	-10.31	<10	<10	<10	<10	<10			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-VD-30	22368 JAP MESA 69 kV	LASPULGS-JAP MESA 69 ck1 AND TALEGA-S.ONOFRE 230 ck 2	P7	L-2	-10.67	<10	<10	<10	<10	<10			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation

For the SDG&E area, power factor for the 2017 base case was modeled using the most recent historical values.



Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-T-1	22046 BASILONE 69.0 22848 TALEGATP 69.0 1	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	211.47	<100	<100	144.80	<100	<100			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, SPS to trip TL 695 in the interim
SD-SP-T-2	22808 STUARTTP 69.0 22400 LASPULGS 69.0 1	TL0695d TALEGA 69-TALEGATP 69 ck 1	P1	L-1	136.70	<100	<100	<100	<100	<100			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, SPS to trip TL 695 in the interim
SD-SP-T-3	22046 BASILONE 69.0 22368 JAP MESA 69.0 1	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	133.24	<100	<100	<100	<100	<100			Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, SPS to trip TL 695 in the interim
SD-SP-T-4	22768 BAY BLVD 69.0 22516 MONTGMRY 69.0 1	TL0642c BAY BLVD 69-MONTGYTP 69 ck 1	P1	L-1	<100	<100	<100	<100	<100	125.10			Operation Procedure, monitor load growth
SD-SP-T-5	22708 SANLUSRY 69.0 22584 OCEANSDE 69.0 1	TL0690c OCNSDETP 69-SANLUSRY 69 ck 1	P1	L-1	120.91	<100	<100	<100	<100	<100			Operation Procedure
SD-SP-T-6	22442 MELRSETP 69.0 22724 SANMRCOS 69.0 1	TL0684 ESCNDIDO-SANMRCOS ck 1	P1	L-1	112.27	<100	<100	<100	<100	<100			ESCNDIDO-SANMRCOS ck 2, as previously approved, Congestion Management in the interim
SD-SP-T-7	22664 POMERADO 69.0 22828 SYCAMORE 69.0 2	TL06915 POMERADO -SYCAMORE ck 1	P1	L-1	<100	<100	<100	<100	<100	102.68			Operation Procedure, and DG/DR/Energy Storage, monitor load growth
SD-SP-T-8	22664 POMERADO 69.0 22828 SYCAMORE 69.0 1	TL06924 POMERADO -SYCAMORE ck 2	P1	L-1	<100	<100	<100	<100	<100	102.68			Operation Procedure, and DG/DR/Energy Storage, monitor load growth
SD-SP-T-9	N/A	TL6914NW MIGUEL-LOVELAND ck 1 AND TL0678 LOSCOCHS-ALPINE ck 1	P6	L-1/L-1	Diverge	Diverge	Diverge	Converge	Converge	Diverge			Operation Procedure
SD-SP-T-10	N/A	TL06917 CREELMAN-SYCAMORE ck 1 AND TL0635 CREELMAN - LOSCOCHS ck 1	P6	L-1/L-1	Diverge	Diverge	Diverge	Converge	Converge	Diverge			Operation Procedure
SD-SP-T-11	22884 WARNERS 69.0 22688 RINCON 69.0 1	TL0681 ASH-FELICITA-VALCNTR 69 ck 1 AND TL0683 RINCON-LILAC ck 1	P6	L-1/L-1	142.16	160.22	160.90	<100	<100	Diverge			Turn on DG at Valley Center
SD-SP-T-12	22272 ESCO 69.0 22876 WARCYNTP 69.0 1	TL0633 BERNARDO-R.CARMEL ck 1 AND TL06913 POWAY-POMERADO ck 1	P6	L-1/L-1	147.88	<100	<100	<100	<100	<100			2nd Poway-Pomerado 69 kV line as previously approved, Operation Procedure in the interim



Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-T-13	22856 TOREYPNS 69.0 22864 UCM 69.0 1	TL06905 GENESEE -PENSQTOS ck 2 AND TL06959 MIRASNT0-PENSQTOS ck 1	P6	L-1/L-1	142.38	136.94	137.18	<100	<100	145.98			Operation Procedure, re-configure systems after 1st contingency
SD-SP-T-14	22372 KEARNY 69.0 22140 CLARMTTP 69.0 1	TL0663 KEARNY -MISSION ck 1 AND TL0676 MESAHGTS-MISSION ck 1	P6	L-1/L-1	134.04	137.86	136.42	<100	<100	145.91			Operation Procedure, re-configure systems after 1st contingency
SD-SP-T-15	22316 GENESEE 69.0 22644 PENSQTOS 69.0 2	TL069 TOREYPNS to UCM ck 1 AND TL06959 MIRASNT0-PENSQTOS ck 1	P6	L-1/L-1	136.79	131.16	131.42	<100	<100	139.97			Operation Procedure, re-configure systems after 1st contingency
SD-SP-T-16	22331 MIRASNT0 69.0 22644 PENSQTOS 69.0 1	TL06905 GENESEE -PENSQTOS ck 2 AND TL069 TOREYPNS to UCM ck 1	P6	L-1/L-1	134.39	130.05	130.31	<100	<100	138.68			Operation Procedure, re-configure systems after 1st contingency
SD-SP-T-17	22420 SILVERGT 69.0 22868 URBAN 69.0 1	TL0602 B-SILVERGT ck 1 AND TL0699 B -SILVERGT ck 2	P6	L-1/L-1	104.50	123.90	129.54	<100	<100	134.76			prefered resources, operation procedure with higher emergency rating,
SD-SP-T-18	22420 SILVERGT 69.0 22548 NATNLCTY 69.0 1	TL0603A SWEETWTR 69-NAVSTMTR 69 ck 1 AND TL0604A OLD TOWN 69-VINE SUB 69 ck 1	P6	L-1/L-1	<100	126.83	127.15	<100	<100	131.56			Operation Procedure
SD-SP-T-19	22548 NATNLCTY 69.0 22820 SWEETWTR 69.0 1	TL0603A SWEETWTR 69-NAVSTMTR 69 ck 1 AND TL0604A OLD TOWN 69-VINE SUB 69 ck 1	P6	L-1/L-1	<100	125.52	125.79	<100	<100	130.14			Operation Procedure
SD-SP-T-20	22112 CAPSTRNO 138 22860 TRABUCO 138 1	TL13831 TALEGA-R.MSNVJO ck 1 AND TL13833 PICO-TRABUCO ck 1	P6	L-1/L-1	129.73	<100	<100	<100	<100	<100			Capistrano-Trabuco line upgrade, as previously approved, in 2018, Operation Procedure in the interim
SD-SP-T-21	22524 MORHILTP 69.0 22440 MELROSE 69.0 1	TL0698 MONSRATE-AVOCADO-PALA ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1	128.90	119.64	120.19	<100	<100	126.16			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-22	22708 SANLUSRY 69.0 22582 OCEAN RANCH 69.0 2	TL0680 SANLUSRY-MELROSE-SANMRCOS ck 1 AND TL69XX OCEAN RANCH to SANLUSRY ck 1	P6	L-1/L-1	<100	120.24	119.84	<100	<100	128.63			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-23	22708 SANLUSRY 69.0 22582 OCEAN RANCH 69.0 1	TL0680 SANLUSRY-MELROSE-SANMRCOS ck 1 AND TL69XX OCEAN RANCH to SANLUSRY ck 2	P6	L-1/L-1	<100	120.24	119.84	<100	<100	128.63			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-24	22252 ENCNITAS 69.0 22160 DEL MAR 69.0 1	TL06952 NORTHCTY-PENSQTOS 69 ck 1 AND TL0616 Lkhodges-BERNARDO-RSF ck 1	P6	L-1/L-1	128.50	<100	<100	<100	<100	<100			Del Mar - North City line, as previously approved, in 2018, Operation Procedure in the interim



Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-T-25	22256 ESCNDIDO 69.0 22272 ESCO 69.0 1	TL0633 BERNARDO-R.CARMEL ck 1 AND TL06913 POWAY-POMERADO ck 1	P6	L-1/L-1	127.29	<100	<100	103.57	<100	<100			2nd Poway-Pomerado 69 kV line as previously approved, preferred resources, and/or load shedding in the interim
SD-SP-T-26	22841 LAGNA NL TAP 138 22396 LAGNA NL 138 1	TL13836 TALEGA-PICO ck 1 AND TL13846A PICO - TA TAP33 ck1	P6	L-1/L-1	126.60	<100	<100	<100	<100	<100			SOCRE project as previously approved in transmission plan, Operation Procedure in the interim
SD-SP-T-27	22884 WARNERS 69.0 22736 SANTYSBL 69.0 1	TL0683 RINCON-LILAC ck 1 AND TL0681 ASH-FELICITA-VALCNTR 69 ck 1	P6	L-1/L-1	113.41	119.39	121.74	<100	<100	126.60			Turn on DG at Valley Center
SD-SP-T-28	22664 POMERADO 69.0 22828 SYCAMORE 69.0 2	TL06915 POMERADO -SYCAMORE ck 1 AND Artesen 230/69 Transformer #1	P6	L-1/T-1	<100	115.64	120.15	<100	<100	126.41			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-29	22664 POMERADO 69.0 22828 SYCAMORE 69.0 1	TL06924 POMERADO -SYCAMORE ck 2 AND Artesen 230/69 Transformer #1	P6	L-1/T-1	<100	115.64	120.15	<100	<100	126.41			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-30	22692 ROSCYNTP 69.0 22696 ROSE CYN 69.0 1	OLD TOWN 69/230 Transformer #1 AND #2	P6	T-1/T-1	125.04	<100	<100	101.80	<100	<100			RoseCanyon 69 kV Tap Elimination, as previously approved, in 2018, Operation Procedure in the interim
SD-SP-T-31	22644 PENSQTOS 69.0 22444 MESA RIM 69.0 2	TL06916 SYCAMORE-SCRIPPS ck 1 AND PENSQTOS-MESA RIM 69 ck 1	P6	L-1/L-1	<100	<100	<100	122.89	122.17	<100			Operation Procedure
SD-SP-T-32	22440 MELROSE 69.0 22708 SANLUSRY 69.0 2	SANLUSRY-MELRSETP 69 ck 1 AND TL0684 ESCNDIDO-SANMRCOS ck 1	P6	L-1/L-1	122.85	<100	<100	100.53	<100	<100			Escondido-San Marcos Ck 2, as previously approved, in 2018, Operation Procedure in the interim
SD-SP-T-33	22416 LOVELAND 69.0 22168 DESCANSO 69.0 1	TL0626 ST-BC-DE ck 1 AND TL06923 BARRETT -CAMERON ck 1	P6	L-1/L-1	<100	<100	<100	<100	119.24	<100			Operation Procedure
SD-SP-T-34	22316 GENESEE 69.0 22864 UCM 69.0 1	TL0662 PENSQTOS -TOREYPNS ck 1 AND TL0666 PQ-DB-DH-TP 69 ck 1	P6	L-1/L-1	119.82	105.01	104.31	<100	<100	111.15			Operation Procedure
SD-SP-T-35	22856 TOREYPNS 69.0 22200 DUNHILTP 69.0 1	TL0662 PENSQTOS -TOREYPNS ck 1 AND TL06907 GENESEE -UCM ck 1	P6	L-1/L-1	121.32	106.16	105.48	<100	<100	112.26			prefered resources, operation procedure with higher emergency rating
SD-SP-T-36	22668 POWAY 69.0 22876 WARCYNTP 69.0 1	TL0633 BERNARDO-R.CARMEL ck 1 AND TL06913 POWAY-POMERADO ck 1	P6	L-1/L-1	119.84	<100	<100	<100	<100	<100			2nd Poway-Pomerado 69 kV line as previously approved in transmission plan, Operation Procedure in the interim



Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-T-37	22440 MELROSE 69.0 22442 MELRSETP 69.0 1	TL0680b SANLUSRY 69-MELRSETP 69 ck 1 AND TL0684 ESCNDIDO-SANMRCOS ck 1	P6	L-1/L-1	119.24	<100	<100	<100	<100	<100			Escondido-San Marcos Ck 2, as previously approved, in 2018, Operation Procedure in the interim
SD-SP-T-38	22160 DEL MAR 69.0 22644 PENSQTOS 69.0 2	TL0610 DEL MAR-PENSQTOS ck 1 AND TL06952 NORTHCTY-PENSQTOS 69 ck 1	P6	L-1/L-1	<100	111.06	111.17	<100	<100	118.32			Operation Procedure
SD-SP-T-39	22512 MONSRATE 69.0 22524 MORHILTP 69.0 1	TL0698 MN-AV-PA ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1	116.00	110.88	111.54	<100	<100	116.93			Operation Procedure
SD-SP-T-40	22331 MIRASNT0 69.0 22316 GENESEE 69.0 1	TL06905 GENESEE -PENSQTOS ck 2 AND TL069 TOREYPNS to UCM ck 1	P6	L-1/L-1	114.07	108.68	109.15	<100	<100	116.23			Operation Procedure
SD-SP-T-41	22668 POWAY 69.0 22664 POMERADO 69.0 1	PEN-SYCAMORE 230 ck 1AND ASTESN-SYCAMORE 69 ck 1	P6	L-1/L-1	116.05	<100	<100	<100	<100	<100			2nd Poway-Pomerado 69 kV line as previously approved in transmission plan, Operation Procedure in the interim
SD-SP-T-42	22768 BAY BLVD 69.0 22520 MONTGYTP 69.0 1	TL0641 SOUTHBAY - MONTGMRY ck 1 AND TL0644 BAY BLVD - SWEETWTR ck 1	P6	L-1/L-1	<100	111.55	110.33	<100	<100	115.95			Operation Procedure
SD-SP-T-43	22160 DEL MAR 69.0 22644 PENSQTOS 69.0 1	TL0667 DEL MAR-PENSQTOS ck 2 AND TL06952 NORTHCTY-PENSQTOS 69 ck 1	P6	L-1/L-1	<100	108.59	108.67	<100	<100	115.74			Operation Procedure
SD-SP-T-44	22840 TALEGA 138 22842 TA TAP33 138 1	TALEGA-R.MSNVJO 138 ck 1 AND TALEGA-PICO 138 ck1	P6	L-1/L-1	111.08	<100	<100	115.05	<100	<100			SOCRE project as previously approved in transmission plan, Operation Procedure in the interim
SD-SP-T-45	22644 PENSQTOS 69.0 22164 DELMARTP 69.0 1	TL06907 GENESEE -UCM ck 1 AND TL0662 PENSQTOS -TOREYPNS ck 1	P6	L-1/L-1	114.79	<100	<100	<100	<100	<100			prefered resources, operation procedure with higher emergency rating
SD-SP-T-46	22644 PENSQTOS 69.0 22856 TOREYPNS 69.0 1	TL0666 PQ-DB-DH-TP 69 ck 1 AND TL06907 GENESEE -UCM ck 1	P6	L-1/L-1	113.08	<100	<100	<100	<100	104.65			Operation Procedure
SD-SP-T-47	22200 DUNHILTP 69.0 22188 DOUBLTTP 69.0 1	TL06907 GENESEE -UCM ck 1 AND TL0662 PENSQTOS -TOREYPNS ck 1	P6	L-1/L-1	113.78	<100	<100	<100	<100	105.02			prefered resources, operation procedure with higher emergency rating
SD-SP-T-48	22188 DOUBLTTP 69.0 22164 DELMARTP 69.0 1	TL0662 PENSQTOS -TOREYPNS ck 1 AND TL06907 GENESEE -UCM ck 1	P6	L-1/L-1	113.77	<100	<100	<100	<100	105.02			prefered resources, operation procedure with higher emergency rating



Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-T-49	22668 POWAY 69.0 22676 R.CARMEL 69.0 1	TL06920 ARTESN-SYCAMORE ck 1 AND TL0689 ESCNDIDO-FELICITA-BERNARDO ck 1	P6	L-1/L-1	112.86	<100	<100	<100	<100	<100			Artesan - Bernardo Circuits, as previously approved, in 2019, Operation Procedure in the interim
SD-SP-T-50	22656 PICO 138 22842 TA TAP33 138 1	TALEGA-R.MSNVJO 138 ck 1 AND TALEGA-PICO 138 ck 1	P6	L-1/L-1	107.97	<100	<100	111.91	<100	<100			SOCRE project as previously approved in transmission plan, Operation Procedure in the interim
SD-SP-T-51	22840 TALEGA 138 22656 PICO 138 1	PICO-SANMATEO 138 ck 1 AND TALEGA-R.MSNVJO 138 ck 1	P6	L-1/L-1	105.63	<100	<100	109.48	<100	<100			SOCRE project as previously approved in transmission plan, Operation Procedure in the interim
SD-SP-T-52	22592 OLD TOWN 69.0 22380 KETTNER 69.0 1	SILVERGT 230/69 kV Transformer #1 AND #2	P6	T-1/T-1	109.42	<100	<100	<100	<100	<100			Bay Blvd 230/69 kV Transformer, as previously approved, in 2018, Operation Procedure in the interim
SD-SP-T-53	22700 SAMPSON 69.0 22420 SILVERGT 69.0 1	TL0657 SAMPSON-SILVERGT ck 2 AND TL0603A SWEETWTR 69-NAVSTMTR 69 ck 1	P6	L-1/L-1	<100	104.61	104.73	<100	<100	109.02			Increase power factor at NAVSTMTR, Operation Procedure
SD-SP-T-54	22500 MISSION 138 22496 MISSION 69.0 1	MISSION 230/69 kV Transformer #1 AND #2	P6	T-1/T-1	<100	102.16	101.82	<100	<100	108.63			Operation Procedure
SD-SP-T-55	22284 FELCTATP 69.0 22288 FELICITA 69.0 1	TL0696 ESCNDIDO-ASH ck 1 AND TL06596 ESCNDIDO-ASH ck 2	P6	L-1/L-1	<100	100.55	101.82	<100	<100	107.82			Operation Procedure
SD-SP-T-56	22592 OLD TOWN 69.0 22871 VINE SUB 69.0 1	SILVERGT 230/69 kV Transformer #1 AND #2	P6	T-1/T-1	<100	<100	<100	<100	<100	106.86			Operation Procedure, and DG/DR/Energy Storage, monitor load growth
SD-SP-T-57	22816 SUNYSIDE 69.0 22636 PARADISE 69.0 1	TL06911 JAMACHA-SPRNGVLY ck 1 AND TL0621 PARADISE-MIGUEL ck 1	P6	L-1/L-1	<100	103.06	101.25	<100	<100	106.82			Operation Procedure
SD-SP-T-58	22112 CAPSTRNO 138 22656 PICO 138 1	TL13831 TALEGA-R.MSNVJO ck 1 AND TL13833 PICO-TRABUCO ck 1	P6	L-1/L-1	106.35	<100	<100	<100	<100	<100			Capistrano-Pico ck 2, as previously approved, Operation Procedure in the interim
SD-SP-T-59	22056 BERNARDO 69.0 22284 FELCTATP 69.0 1	TL0648 POWAY-R.CARMEL ck 1 AND TL06920 ARTESN-SYCAMORE ck 1	P6	L-1/L-1	105.80	<100	<100	<100	<100	<100			Artesen 230kV and 69kV upgrades, as previously approved, in 2019, Operation Procedure
SD-SP-T-60	22380 KETTNER 69.0 22024 B 69.0 1	OLD TOWN 230/69 kV Transformer #1 AND #2	P6	T-1/T-1	<100	100.92	<100	<100	<100	105.78			Operation Procedure
SD-SP-T-61	22336 GRANITE 69.0 22408 LOSCOCHS 69.0 1	TLNEWB LOSCOCHS 69-GRANITE 69 ck 2 AND EL CAJON-GRANITE 69 ck 1	P6	L-1/L-1	105.17	<100	<100	<100	<100	<100			Increase power factor at GRANITE, Operation Procedure



Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-T-62	22720 SANMATEO 138 22841 LAGNA NL TAP 138 1	TL13836 TALEGA-PICO ck 1 AND TL13846C TALEGA- TA TAP33 ck 1	P6	L-1/L-1	104.94	<100	<100	<100	<100	<100			SOCRE project as previously approved in transmission plan, Operation Procedure in the interim
SD-SP-T-63	22336 GRANITE 69.0 22408 LOSCOCHS 69.0 2	TLNEWA LOSCOCHS 69-GRANITE 69 ck 1 AND EL CAJON-GRANITE 69 ck 1	P6	L-1/L-1	104.58	<100	<100	<100	<100	<100			Increase power factor at GRANITE, Operation Procedure
SD-SP-T-64	22024 B 69.0 22420 SILVERGT 69.0 2	TL0602 B-SILVERGT ck 1 AND TL0605 SILVERGT-URBAN ck 1	P6	L-1/L-1	<100	<100	100.90	<100	<100	104.56			Operation Procedure
SD-SP-T-65	22136 CLAIMNT 69.0 22140 CLARMTTP 69.0 1	TL0663 KEARNY -MISSION ck 1 AND TL0676 MESAHGTS-MISSION ck 1	P6	L-1/L-1	<100	<100	<100	<100	<100	103.53			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-66	22208 EL CAJON 69.0 22408 LOSCOCHS 69.0 1	TL0620 MURRAY-GARFIELD ck 1 AND LD_GRB_LD_GR OPEN 632 PK JM/EC/GA	P6	L-1/L-1	<100	<100	<100	102.75	<100	<100			Operation Procedure, and DG/DR
SD-SP-T-67	22476 MIGUELTP 69.0 22456 MIGUEL 69.0 1	TL06911 JAMACHA-SPRNGVLY ck 1 AND TL0621 PARADISE-MIGUEL ck 1	P6	L-1/L-1	<100	<100	<100	<100	<100	102.47			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-68	22720 SANMATEO 138 22842 TA TAP33 138 1	TL13835C TALEGA-LAGNA NL TAP AND LD_LNLB_TL13837 CAPSTRNO-LAGNA NL ck 1	P6	L-1/L-1	<100	<100	<100	101.44	<100	<100			Operation Procedure, and DG/DR
SD-SP-T-69	22556 NAVSTMTR 69.0 22820 SWEETWTR 69.0 1	SILVERGT 230/69 kV Transformer #1 AND #2	P6	T-1/T-1	<100	<100	<100	<100	<100	101.09			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-70	22680 R.SNTAFE 69.0 22685 R.SNTTP1 69.0 1	TL06952 NORTHCTY-PENSQTOS 69 ck 1 AND TL0660 ENCINITAS-DEL MAR ck 1	P6	L-1/L-1	101.04	<100	<100	<100	<100	<100			Del Mar - North City line, as previously approved, in 2018, Operation Procedure in the interim
SD-SP-T-71	22462 ML60 TAP 138 22772 SOUTHBAY 138 1	TL13824 SOUTHBAY-ML60 TAP ck 1 AND Miguel 230/138 Transformer	P6	L-1/T-1	100.45	<100	<100	<100	<100	<100			Operation Procedure
SD-SP-T-72	22008 ASH 69.0 22012 ASH TP 69.0 1	TL0679 ESCNDIDO-FELICITA ck 1 AND TL0689 ESCNDIDO-FELICITA-BERNARDO ck 1	P7	L-2	<100	<100	<100	<100	<100	100.40			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-73	22306 GARFIELD 69.0 22208 EL CAJON 69.0 1	TL0618 MISSION-MURRAY ck 1 AND TL0619 MISSION-MURRAY ck 2	P7	L-2	119.53	119.59	116.57	<100	<100	124.51			prefered resources, operation procedure with higher emergency rating
SD-SP-T-74	22284 FELCTATP 69.0 22288 FELICITA 69.0 1	TL0696 ESCNDIDO-ASH ck 1 AND TL06596 ESCNDIDO-ASH ck 2	P7	L-2	<100	100.55	101.82	<100	<100	107.82			Operation Procedure, and DG/DR/Energy Storage
SD-SP-T-75	22532 MURRAY 69.0 22306 GARFIELD 69.0 1	TL0618 MISSION-MURRAY ck 1 AND TL0619 MISSION-MURRAY ck 2	P7	L-2	103.59	101.93	<100	<100	<100	106.19			Operation Procedure, and DG/DR/Energy Storage



Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-T-76	22160 DEL MAR 69.0 22164 DELMARTP 69.0 1	TL0610 DEL MAR-PENSQTOS ck 1 AND TL0667 DEL MAR-PENSQTOS ck 2	P7	L-2	115.44	<100	<100	<100	<100	<100			Del Mar - North City line, as previously approved, in 2018, Operation Procedure in the interim

Study Area: **SDG&E Sub-Transmission**

High/Low Voltage



ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Summer Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-V-1	22804 STUART 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	0.79								Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-2	22808 STUARTTP 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	0.79								Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-3	22400 LASPULGS 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	0.79								Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-4	22368 JAP MESA 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	0.83								Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-5	22046 BASILONE 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	0.85								Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-6	22848 TALEGATP 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	0.88								Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-7	22156 CRSTNTS 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	0.88								Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-8	22836 TALEGA 69 kV	TL0690d OCNSDETP 69-STUARTTP 69 ck 1	P1	L-1	0.88								Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-9	22540 NARROWS 69 kV	TL0682 WARNERS-RINCON ck 1	P1	L-1	1.11								Turn off capacitor at SANTYSBL and BORREGO
SD-SP-V-10	22084 BORREGO 69 kV	TL0682 WARNERS-RINCON ck 1	P1	L-1	1.12								Turn off capacitor at SANTYSBL and BORREGO
SD-SP-V-11	22083 BR GEN HV 69 kV	TL0682 WARNERS-RINCON ck 1	P1	L-1	1.12								Turn off capacitor at SANTYSBL and BORREGO
SD-SP-V-12	22836 TALEGA 69 kV	TL06971 JAPMESA-BASILONE ck 1	P1	L-1	1.12			1.07					Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-13	22848 TALEGATP 69 kV	TL06971 JAPMESA-BASILONE ck 1	P1	L-1	1.12			1.07					Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation

Study Area: **SDG&E Sub-Transmission**

High/Low Voltage



ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Summer Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-V-14	22156 CRSTNTS 69 kV	TL06971 JAPMESA-BASILONE ck 1	P1	L-1	1.12			1.07					Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-15	22046 BASILONE 69 kV	TL06971 JAPMESA-BASILONE ck 1	P1	L-1	1.12			1.07					Reconduct Talega Tap - Stuart Tap 69 kV, as previously approved, in 2018, higher power factor resolves voltage deviation
SD-SP-V-16	22324 GLENCLIF 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1				1.11					Turn on Reactor at KUMEYAAY
SD-SP-V-17	22328 GLNCLFTP 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1				1.11					Turn on Reactor at KUMEYAAY
SD-SP-V-18	22040 BARRETT 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1				1.14					Turn on Reactor at KUMEYAAY
SD-SP-V-19	22104 CAMERON 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1				1.14					Turn on Reactor at KUMEYAAY
SD-SP-V-20	22072 CAMERNTP 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1				1.14					Turn on Reactor at KUMEYAAY
SD-SP-V-21	22902 CRESTWD 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1				1.16					Turn on Reactor at KUMEYAAY
SD-SP-V-22	22903 KUMEYAAY 69 kV	TL0625 BARRETT - DESCANSO - LOVELAND ck 1	P1	L-1				1.16					Turn on Reactor at KUMEYAAY
SD-SP-V-23	22328 GLNCLFTP 69 kV	TL06923 BARRETT -CAMERON ck 1	P1	L-1					1.10				Turn on Reactor at KUMEYAAY
SD-SP-V-24	22324 GLENCLIF 69 kV	TL06923 BARRETT -CAMERON ck 1	P1	L-1					1.10				Turn on Reactor at KUMEYAAY
SD-SP-V-25	22040 BARRETT 69 kV	TL06957 LOVELAND-BARRETT ck 1	P1	L-1					1.14				Turn on Reactor at KUMEYAAY
SD-SP-V-26	22104 CAMERON 69 kV	TL06923 BARRETT -CAMERON ck 1	P1	L-1				1.12	1.14				Turn on Reactor at KUMEYAAY
SD-SP-V-27	22072 CAMERNTP 69 kV	TL06923 BARRETT -CAMERON ck 1	P1	L-1				1.12	1.14				Turn on Reactor at KUMEYAAY
SD-SP-V-28	22902 CRESTWD 69 kV	TL06923 BARRETT -CAMERON ck 1	P1	L-1				1.14	1.16				Turn on Reactor at KUMEYAAY
SD-SP-V-29	22903 KUMEYAAY 69 kV	TL06923 BARRETT -CAMERON ck 1	P1	L-1				1.14	1.16				Turn on Reactor at KUMEYAAY
SD-SP-V-30	22640 PENDLETN 69 kV	TL0698 MN-AV-PA ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1	0.84	0.89	0.89			0.88			Operation Procedure, and DG/DR/Energy Storage
SD-SP-V-31	22020 AVOCADO 69 kV	TL0698 MN-AV-PA ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1	0.84	0.88	0.88			0.87			Operation Procedure, and DG/DR/Energy Storage
SD-SP-V-32	22016 AVCADOTP 69 kV	TL0698 MN-AV-PA ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1	0.86	0.90	0.90			0.89			Operation Procedure, and DG/DR/Energy Storage
SD-SP-V-33	22512 MONSRATE 69 kV	TL0698 MN-AV-PA ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1	0.86		0.90			0.89			Operation Procedure, and DG/DR/Energy Storage
SD-SP-V-34	22676 R.CARMEL 69 kV	TL0633 BERNARDO-R.CARMEL ck 1 AND TL06913 POWAY-POMERADO ck 1	P6	L-1/L-1	0.87								2nd Poway-Pomerado 69 kV line as previously approved, Operation Procedure in the interim
SD-SP-V-35	22668 POWAY 69 kV	TL0633 BERNARDO-R.CARMEL ck 1 AND TL06913 POWAY-POMERADO ck 1	P6	L-1/L-1	0.88								2nd Poway-Pomerado 69 kV line as previously approved, Operation Procedure in the interim
SD-SP-V-36	22688 RINCON 69 kV	TL0683 RINCON-LILAC ck 1 AND TL06926 RINCON -VALCNTR ck 1	P6	L-1/L-1	1.12								Turn off capacitor at RINCON
SD-SP-V-37	22064 BLDCKRKT 69 kV	TL0637 SANTYSBL - CREELMAN ck 1 AND TL0625 BAR - DS - LV 69 ck 1	P6	L-1/L-1	1.13								Turn on Reactor at KUMEYAAY



ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)								Potential Mitigation Solutions
					2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Summer Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	
SD-SP-V-38	22068 BOLDRCRK 69 kV	TL0637 SANTYSBL - CREELMAN ck 1 AND TL0625 BAR - DS - LV 69 ck 1	P6	L-1/L-1	1.13								Turn on Reactor at KUMEYAAY
SD-SP-V-39	22168 DESCANSO 69 kV	TL0637 SANTYSBL - CREELMAN ck 1 AND TL0625 BAR - DS - LV 69 ck 1	P6	L-1/L-1	1.13			1.12					Turn on Reactor at KUMEYAAY
SD-SP-V-40	22736 SANTYSBL 69 kV	TL0637 SANTYSBL - CREELMAN ck 1 AND TL0682 WARNERS-RINCON ck 1	P6	L-1/L-1	1.13								Turn on Reactor at KUMEYAAY
SD-SP-V-41	22084 BORREGO 69 kV	TL0685 WARNERS-SANTYSBL ck 1 AND TL06960 BORREGO-BR GEN HV ck 1	P6	L-1/L-1			0.90			0.88			Operation Procedure
SD-SP-V-42	22512 MONSRATE 69 kV	TL0698 MN-AV-PA ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1	0.86		0.90			0.89			Operation Procedure
SD-SP-V-43	22640 PENDLETN 69 kV	TL06912 PENDLETN-SANLUSRY ck 1 AND TL0694 MN-MHTAP-MH-ME 69 ck 1	P6	L-1/L-1				0.88	0.88				Operation Procedure
SD-SP-V-44	22020 AVOCADO 69 kV	TL06912 PENDLETN-SANLUSRY ck 1 AND TL0694 MN-MHTAP-MH-ME 69 ck 1	P6	L-1/L-1				0.88					Operation Procedure
SD-SP-V-45	22016 AVCADOTP 69 kV	TL06912 PENDLETN-SANLUSRY ck 1 AND TL0694 MN-MHTAP-MH-ME 69 ck 1	P6	L-1/L-1				0.89	0.90				Operation Procedure
SD-SP-V-46	22540 NARROWS 69 kV	TL0637 SANTYSBL - CREELMAN ck 1 AND TL0682 WARNERS-RINCON ck 1	P6	L-1/L-1	1.18			1.12					Turn off capacitor at BORREGO
SD-SP-V-47	22168 DESCANSO 69 kV	TL0625 BAR - DS - LV 69 ck 1 AND TL0637 SANTYSBL - CREELMAN ck 1	P6	L-1/L-1	1.13			1.10					Turn on Reactor at KUMEYAAY
SD-SP-V-48	22640 PENDLETN 69 kV	TL0694 MN-MHTAP-MH-ME ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1				0.88	0.88				Operation Procedure
SD-SP-V-49	22016 AVCADOTP 69 kV	TL0694 MN-MHTAP-MH-ME ck 1 AND TL06912 PENDLETN-SANLUSRY ck 1	P6	L-1/L-1				0.89	0.90				Operation Procedure
SD-SP-V-50	22104 CAMERON 69 kV	TL06904 LOVELAND-ALPINE ck 1 AND TL6914NW MIGUEL-LOVELAND ck 1	P6	L-1/L-1					1.11	0.90			Turn on Capacitor/Reactor at KUMEYAAY
SD-SP-V-51	22040 BARRETT 69 kV	TL06904 LOVELAND-ALPINE ck 1 AND TL6914NW MIGUEL-LOVELAND ck 1	P6	L-1/L-1					1.10	0.90			Turn on Capacitor/Reactor at KUMEYAAY
SD-SP-V-52	22884 WARNERS 69 kV	DESCANSO-SANTYSBL-BOLDRCRK 69 + CREELMAN-SANTYSBL 69	P7	L-2	1.10								Turn off capacitor at BORREGO
SD-SP-V-53	22736 SANTYSBL 69 kV	DESCANSO-SANTYSBL-BOLDRCRK 69 + CREELMAN-SANTYSBL 69	P7	L-2	1.12								Turn off capacitor at BORREGO
SD-SP-V-54	22540 NARROWS 69 kV	DESCANSO-SANTYSBL-BOLDRCRK 69 + CREELMAN-SANTYSBL 69	P7	L-2	1.13								Turn off capacitor at BORREGO
SD-SP-V-55	22084 BORREGO 69 kV	DESCANSO-SANTYSBL-BOLDRCRK 69 + CREELMAN-SANTYSBL 69	P7	L-2	1.14			1.11					Turn off capacitor at BORREGO
SD-SP-V-56	22083 BR GEN HV 69 kV	DESCANSO-SANTYSBL-BOLDRCRK 69 + CREELMAN-SANTYSBL 69	P7	L-2	1.14			1.11					Turn off capacitor at BORREGO



Transient Stability

ID	Contingency	Category	Category Description	Transient Stability Performance								Potential Mitigation Solutions
				2017 Summer Peak	2020 Summer Peak	2025 Summer Peak	2017 Spring Off-Peak	2020 Spring Light Load	2025 SP High CEC Load	N/A	N/A	

No transient stability concerns identified.

Study Area: **SDG&E Sub-Transmission**



Single Contingency Load Drop

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)								Potential Mitigation Solutions
				Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	
X-SP-SLD-1												

No single contingency resulted in total load drop of more than 250 MW.

Study Area: **SDG&E Sub-Transmission**



Single Source Substation with more than 100 MW Load

ID	Substation	Load Served (MW)								Potential Mitigation Solutions
		Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	
X-SP-SS-1										

No single source substation with more than 100 MW Load